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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,800	06/24/2002	Sakari Soini	FORSAI-39	1062

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EXAMINER
HASTINGS, KAREN M

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089800

Applicant(s)

Savin

Examiner

HASTINGS

Group Art Unit

1731

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 4/2002

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 11-30 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 11-30 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☒ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).
- *Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Claims 11-30 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 11 line 5 "whereafter an impact of elements . . . is directed thereto" is unclear. What does this mean? (Also "whereafter" is misspelled).

In each of claims 15 and 19, line 1 "for the head box" should be --in a head box-- in order to be clear. Otherwise the limitations to the relative spacing of the stepped expansions to the slice opening of the head box etc. are not clear and positive recitations since the turbulence generator is not positively set forth in combination with the head box.

Claims 21-23 are all duplicates of one another. Correction is necessary.

In each of independent claims 24 and 28, the last few lines of the claim "such that . . ." should be changed to positively recite --and is structured and arranged so that--.

Likewise in apparatus claims 15 and 19 it appears that one should more positively set forth that the head box is structured and arranged so that a different turbulence prevails in different layers of the stock suspension flow at the slice opening.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-16, 19-26 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Keskiivari et al., if needed with Hergert et al.

Keskiivari et al. teaches a multilayer head box wherein the flow speed in each channel 3 may be different which changes the pattern of turbulence in the slice opening 8. The pattern can also be influenced by choosing different lengths and shapes for the partition walls 3A. See Figure 1 and column 1 lines 25-30. Note that the partitions 3A make up what is called a turbulence

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generator. These channels may be replaced with pipes. See column 8 lines 10-17; it is also possible to have both channels and pipes.

As can be seen in Figure 1, the area where there is a stepped expansion in each channel/pipe is at a different distance from the slice opening of the head box. Thus it is not seen how these claims operationally and/or structurally distinguish over the overall teachings of this reference.

Furthermore as necessary Hergert et al. also teaches turbulence may be generated (see Figures 4 and 5) using partition shapes that vary in different flow passages as to where the turbulence generating elements are. Furthermore Hergert et al. also teaches the known use of trailing elements at the ends of the turbulence generating structure partition and that these trailing elements may vary in distance from the slice opening. Furthermore the claims do not structurally distinguish over the trailing elements that may be at the end of the partitions; since the claims nowhere require that the trailing elements end before the head box slice opening.

At least claims 11, 12, 14-15, 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hildebrand '162.

Hildebrand '162 in each of Figures 1 and 3 teach a multilayer head box wherein the rows of the turbulence generator

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in the middle row are constructed and arranged such that the stepped expansion spot is at a different distance from the slice opening than that at the top or bottom/outer rows. It is not seen how these claims structurally distinguish thereover.

At least claims 11, 13-14, 19, 20-23 and 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Allen or FI 88317.

Allen teaches a head box with a stepped diffuser tube bank 2 followed by trailing elements which may be of different distance from the slice opening.

Likewise FI 88317 in Figure 1 shows trailing elements 30 that may end at different distances from the slice opening.

It is not seen how these claims distinguish over the structure or operation set forth in either of these two references. Any differences that may be gleaned from the current claim language are deemed prima facie obvious modifications of known technical features in head boxes.

With respect to claims 20-23, Fig 4 of Allen clearly illustrates the middle layer has greater flow section than the outer layers.

Claims 17, 18, 26, 27, 29 and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112 set

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forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

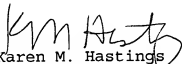
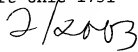
Heinzmann is cited of interest to a longitudinally movable turbulence generator wall to control the turbulence generation; see Figures 1 and 2.

Rodal et al. in Figures 1A-1C shows trailing elements whose tips are at different distances from the slice opening.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.


Karen M. Hastings
Senior Primary Examiner
Art Unit 1731


KMH/cdc
February 21, 2003